## UNCLASSIFIED

## AD NUMBER AD838929 **NEW LIMITATION CHANGE** TO Approved for public release, distribution unlimited **FROM** Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; MAR 1965. Other requests shall be referred to Department of the Army, Fort Detrick, Attn: Technical Release Branch/TID, Frederick, MD 21701. **AUTHORITY** Fort Detrick/SMUFD ltr dtd 14 Feb 1972

AD 838929

TRANSLATION NO.1326

-D444-13-

DATE: 23 MARCH 1965

## DDC AVAILABILITY NOTICE

Reproduction of this publication in whole or in part is prohibited. However, DDC is authorized to reproduce the publication for United States Government purposes.

DI SEP 6 1968

STATEMENT #2 UNCLASSIFIED

This document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of Dept. of Army, Fort Detrick, ATTN: Technical Release Branch/TID, Frederick, Maryland 21701

## PSEUDO-TUBERCULOSIS IN THE MONKEY

Verge, J. & Placidi, L. Translation of an article from C. R. Soc. Biol., Vol. 136, 1942, pp. /83-484.

Pseudo-tuherculosis or rodentiose is a virulent and innoculable disease which attacks mainly rodents and birds. Rarely is it found in man and medical literature has barely 15 authentic observations of it. In exceptional cases, it affects monkeys as revealed by Saenz /See Note 1/ in Corcopithecus callitrichus, by Saenz and Costil /See Note 2/ in a Mangabey monkey, and by Christiansen /See Note 3/. Nevertheless, pseudo-tuberculosis can be reproduced experimentally in monkeys with ease; this is shown in the tests of Klein /See Note 4/ and Saenz /See Note 1/.

[Note 17: Saenz, C.R. de la Soc. Biol., 1930, No. 104, p. 1189.

[Note 27: Saenz et Custil. C.R. de la Soc. Biol., 1932, No. 110, p. 449.

[Note 37: Christiansen, Maned, for Dyrlaeger, 1936, No. 47, p. 353.

/Note 47: Klein, Zentr. Bakt., 1899, No. 26, p. 260.

Recently, we have succeeded in bringing this disease to light with the autopsy of a monkey Macacus rhesus which came from the Zoological Gardens of Marseille (Jardin scologique de Marseille). The circumstances of death were unknown. The autopsy revealed, aside from a general ganglionic hypertrophy, the presence of nodules of various sizes (pea. hazelnut, walnut...) on a level with the lungs, liver and spleen. The histological examination of the hepatic pseudo-tubercules showed an abundant infiltration by monocytes and lymphocytes together with rare giant cells of Langhans' type. In a more advanced state of the disease the nodule has a necrotic center, rich in eosinophile cells, as was recently described by Chretien's [See Note 5] work with zoogleic

tuberculosis in the rabbit. The lungs are affected in the following manner: the intermodular pulmonary tissue is attacked by an obvious catarrhal alveolitis, while the fine bronchial branches are filled with inflammatory cells:

[Note 57: Chretien, Hyg. viande et lait, 1912, No. 6, p. 434.

The cultures, made from specific nodules, permitted us to isolate the streptobacillus of Vignal and Malassez: <u>Pasturella pseudotubercu-</u>losis.

The microorganism appears as a very short bacillus with rounded ends, aero-aneropic and moril only at 20°C; it is not colored by the Gram method and does not produce indol. On ordinary afar, it produces small colonies, rounded and lightly opalescent, containing many coccobacillary types about one  $\mu$  in length. Broth is turbid in an homogenous manner and produces multiple streptobacillary forms; lithus milk shows neither color change nor coagulation; neutral red agar shows neither gas nor fluorescence. Lead subacetate agar does not blacken and gelatine is not liquified.

The microbe has a characteristic action in regard to different sugar media. In 48 hours it changes the color of glucose, levulose, maltose, mannite, galactose, mannose, arabinose, xylose and rhamnose media [See Note 5]; sucrose media changed at first, returns to blue again; on the other hand, lactose, inuline, dextrine dulcose and starch show no reaction.

Note 67: Rhamnose media are the choice media to differentiate between the human type bacillus and the rodent pseudotubercular type bacillus.

The infected monkey lived with three other <u>Macacus rhesus</u> in the same cage of the monkey house in the zoo. We tested, by allergic methods, to see if these animals were infected by their congener. The three were inoculated in the dermis of the right arm, with 0.1 cc of steril broth as a control and in the dermis of the left arm with 0.1 cc of a three week old culture previously heated for 60 min. at 60° C. We were unable to find the smallest allergic reaction or the slightest manifestation of hypersensibility. The absence of pseudo-tubercular infection was verified further when these three animals died 15 months later.

In summary, we present here, the third French observation of pseudo-tuberculosis in the monkey (<u>Macacus rhesus</u>), due to the presence in the organism of the Streptobacillus of Vignal and Malassez:

<u>Pasteurella pseudotuberculosis</u>.